

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

SARVINT TECHNOLOGIES, INC.

Plaintiff,

vs.

SENSORIA, INC.

Defendant.

Civil Action File No.

1:15-cv-00072-TCB

**SARVINT’S RESPONSIVE BRIEF ON CLAIM CONSTRUCTION**

Plaintiff, Sarvint Technologies, Inc. (“Sarvint”), by and through undersigned counsel, respectfully submits this responsive brief to Sensoria, Inc.’s (“Sensoria”) claim construction pursuant to Patent Local Rule 6.5 and the Court’s Order [Dkt. No. 62] for filing Simultaneous Responsive Claims Construction Briefing.

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## **I. INTRODUCTION**

Sensoria's Opening Claim Construction Brief [Dkt. No. 63] cites bedrock principles of claim construction. However, rather than applying the principles set forth, Sensoria's arguments cling to tangential extrinsic evidence that is unsupported by the record.

Sarvint's Responsive Claim Construction Brief is directed to U.S. Patent No. 6,970,731 (the "'731 Patent"), entitled "A Novel Fabric-Based Sensor for Monitoring Vital Signs." The '731 Patent incorporates by reference U.S. Patent No. 6,381,482 (the "'482 Patent") and U.S. Patent No. 6,145,551 (the "'551 Patent").

## **II. THE '731 PATENT INCLUDES THE '482 PATENT AND THE '551 PATENT.**

In an effort to run from the bedrock principles of claim construction, Sensoria attempts to unnecessarily limit the scope of the '731 Patent by asking the Court to ignore the fact that the '731 Patent incorporates by reference the '551 Patent and the '482 Patent. Sensoria would like the Court to believe the '551 Patent and the '482 Patent are not part of the intrinsic evidence, or even a part of the '731 Patent specification itself. *See* [Dkt. No. 63, pg. 12] *stating* ("These parameters ['482 Patent disclosures of voice, allergic, and penetration of fabric] are not at all associated with 'electrical impulses of a subject and, more broadly, have no support in the intrinsic evidence.").

However, the ‘482 Patent and ‘551 Patent are both incorporated by reference into the specification of the ‘731 Patent itself. As well-known to the Court, the specification is a primary part of the intrinsic evidence upon which provides guidance in construing claim terms.

### III. **RESPONSIVE CLAIM CONSTRUCTION ARGUMENT**

The Parties dispute three areas of claims construction: 1) vital signs, 2) formed from, and 3) conductivity terms.

For convenience of the Court, Claim 1 of the ‘731 Patent is reproduced below with the three areas of disputed construction underlined and bolded.

A method for monitoring the **[vital signs]** of a subject comprising applying a fabric-based sensor to the subject and connecting the sensor to a monitor, the fabric-based sensor comprising:

- (a) a knitted or woven **[fully-conductive]** fabric including one or more **[individually conductive fibers]** integrated therein by the process of knitting or weaving the fabric, each conductive fiber being **[individually conductive prior to incorporation into the fabric]** **[in the absence of conductivity imparted to the fabric or to the fibers after incorporation into the fabric]**; and
- (b) an electrical lead for connection to a connector, **[the electrical lead being [formed from] one of the integrated individually [conductive] fibers]**; and
- (c) a connector connected to the electrical lead.

#### 1. The disputed “vital signs” term.

Term(s)	Sarvint’s Proposed Construction	Sensoria’s Proposed Construction
Vital signs (claim 1)	Electrical impulses representing physical aspects of a subject including heart	Electrical impulses representing essential body functions, namely respiration

	rate, EKG, pulse, respiration rate, temperature, voice, allergic reaction, and penetration of the fabric	rate, pulse, temperature, blood pressure, and electrical activity in the heart and brain
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a. The preamble of the ‘731 Patent.

Sensoria’s Opening Brief included five (5) pages regarding whether “vital signs” should be construed at all. Sensoria’s argument was based upon the premise that “vital signs” resides in the preamble of the claim. Sarvint did not contest the location of “vital signs” in the preamble in an effort to simplify the issues before the Court.

It is well understood that a preamble will not be seen as limiting unless it “breathes life and meaning into the claim.” *In re Wertheim*, 541 F.2d 257 (C.C.P.A. 1976). Whether or not vital signs breathes life and meaning into the claims, Sarvint proposes a reasonable construction for “vital signs” that the Court should adopt.

b. “Vital signs” means “electrical impulses representing physical aspects of a subject including heart rate, EKG, pulse, respiration rate, temperature, voice, allergic reaction, and penetration of the fabric.”

Sarvint’s construction of vital signs is derived from the intrinsic evidence in the record. Sensoria instead relies on extrinsic evidence that appears to support Sarvint’s construction more than its own.

Sensoria’s argument for its construction of “vital signs” relies on establishing a false premise and then arguing extrinsic evidence in support of that false premise.

Sensoria establishes its false premise early on in the Opening Brief by stating “The ‘731 Patent’s specification lists only two potential applications for the disclosed invention, both drawn to medical care.” [Dkt. No. 63, pg. 2]. Sensoria’s statement is misleading. The ‘731 Patent incorporates by reference into its specification the ‘551 Patent and the ‘482 Patent. *See* Section II, *supra*. As such, the ‘731 Patent identifies applications such as military, firefighting, driving, sports, mountaineering, and even space as well as medical applications. [Dkt. No. 64-2, Exhibit B – ‘482 Patent, 4:60-5:2]. By stating that only medical care is listed in the ‘731 Patent, Sensoria blatantly ignores the intrinsic evidence of the ‘731 Patent.

Having attempted to establish a false premise that the ‘731 Patent is exclusively directed to the area of medical care, Sensoria then seeks to define “vital signs” as requiring only “essential body functions.” In doing so, Sensoria attempts to ignore the intrinsic evidence that does not support its construction and instead relies on extrinsic evidence. Sensoria selects Taber’s Cyclopedic Medical Dictionary as extrinsic evidence, in an attempt to define vital signs in an extremely limiting fashion based upon its false premise that the ‘731 Patent was only directed to medical care.

Taber’s defines “vital signs” as “the traditional signs of life, i.e. heartbeat, body temperature, respiration, and blood pressure.” [Dkt. No. 63-6]. Sarvint agrees that vital signs are consistent with the definition of “traditional signs of life.” Sarvint



suggests, however, that the examples listed are incorrectly identified with the designation “i.e.” instead of “for example,” and are further only a limited number of examples.

Simply put, Sensoria relies on a narrow list of examples in Taber’s to support its construction. The listed examples of heartbeat, body temperature, respiration, and blood pressure are not the only traditional signs of life. Even Sensoria’s own construction demonstrates that these are not the only traditional signs of life; Sensoria’s construction of vital signs includes electrical activity of at least the brain, which is even broader than Taber’s definition. [Dkt. No. 55-2, Exhibit B].

Sarvint’s construction is better supported by Taber’s definition of vital signs. All of the examples of Sarvint’s construction are “traditional signs of life” as expressly defined by Taber’s. For example, heart rate is a traditional sign of life. EKG is a traditional sign of life. Pulse is a traditional sign of life. Respiration rate is a traditional sign of life. Temperature is a traditional sign of life. Voice is a traditional sign of life. Allergic reaction is a traditional sign of life. Even penetration of the fabric is a traditional sign of life, because it represents the physical aspect of the subject wearing the fabric.

Sarvint submits that the proper construction for “vital signs” is “electrical impulses representing physical aspects of a subject including heart rate, EKG, pulse, respiration rate, temperature, voice, allergic reaction, and penetration of the fabric.”

**2. The disputed terms “the electrical lead being formed from one of the integrated individually conductive fibers.”**

<b>Term(s)</b>	<b>Sarvint’s Proposed Construction</b>	<b>Sensoria’s Proposed Construction</b>
The electrical lead being formed from one of the integrated individually conductive fibers (claim 1)	The electrical lead being in communication with one of the integrated individually conductive fibers	The entire electrical lead consists of one of the integrated individually conductive fibers of the fully conductive fabric

- a. “The electrical lead being formed from one of the integrated individually conductive fibers” means “The electrical lead being in communication with one of the integrated individually conductive fibers.”

The phrase “the electrical lead being formed from one of the integrated individually conductive fibers” is in dispute. The Parties Opening Briefs do not dispute the definition of an electrical lead. However, the Opening Briefs do dispute what it means for an electrical lead to be “formed from” one of the integrated individually conductive fibers. Sarvint construes “the electrical lead being formed from one of the integrated individually conductive fibers” to mean “the electrical lead being in communication with one of the integrated individually conductive fibers.”

Sensoria once again relies on a false premise and supports its construction with extrinsic evidence. Sensoria ignores the plain language of the amendment in the prosecution history of the ‘731 Patent stating that the change from “comprising”

to “being formed from” was not narrowing. The Applicant clearly stated that the amendment was non-narrowing:

“Applicant wishes to clarify that the amendments based on this rejection are cosmetic in nature and not made as a condition for obtaining a patent. **Applicant further submits that these amendments are non-narrowing** and, pursuant to *Festo Corp. v. Shokeetsu Kinszoku Kogyo Kubushiki Co*, 122 S. Ct. 1831 (2002), no prosecution history estoppel arises from these amendments.” Amendment and Response to Office Action Dated December 18, 2003, page 10; *See* Exhibit D, Page 83. Emphasis added.

In an effort to support its false premise, Sensoria again cites extrinsic evidence. In particular, Sensoria relies upon a claim construction order (“the Green Order”) from the District Court of South Carolina that construed U.S. Patent No. 6, 250, 040 (the “’040 Patent”), encompassing art related to a *screen door*— not the technology embodied by the ‘731 Patent. *Green v. Snavley Forest Products Co.*, Case No. 3:02-3440-MBS, 2006 U.S. Dist. LEXIS 19895 (D.S.C. Mar. 30, 2006).

The Green Order is neither controlling nor relevant. Nor does the Green Order stand for the construction Sensoria presents. The Green Order construed a screen door “comprising . . . two rails and two stiles being “made of” solid foamed plastic.” [‘040 Patent, Claim 1]. The Green Order construed “made of” as meaning “formed from.” [Dkt. No. 63-7, pg. 7]. The Green Order does not construe the words “formed from” to mean “made of,” as Sensoria would like this Court to believe. But more importantly, the Green Order does not even stand for the proposition that “made of” is a synonym of “formed from.”

Sensoria wants the Court to construe “formed from” to mean “made entirely of.” However, if Applicant’s would have desired such a narrowing limitation the claim would recite “formed entirely of” not “formed from.” *See California Medical Products, Inc., v. Tecnol Medical Products, Inc.* 921 F.Supp.1219 (D. Del. 1995) (construing the phrase to “be formed entirely of a stiff, flexible, plastic sheet material” as “requires the band to be formed out of a single piece of material.”) Nowhere in the specification of the ‘731 Patent or the prosecution history indicates that the electrical lead be formed entirely of [the conductive fibers]. The opposite is true, the electrical lead is in communication with one of the individually conductive fibers of the fabric-based sensor. *See* [Dkt. No. 64-1, Exhibit A – ‘731 Patent, Claim 1].

Sensoria cites another unrelated case from the Eastern District of Arkansas which is again neither controlling nor relevant. *Wiley v. Rocktenn CP., LLC*, 2013 WL 5567966 \*6. This case is directed to a “heavy-duty, knock-down container” and the case states that neither party disputed testimony regarding the words “formed from” and provides no further analysis on the subject. *Id.* As such, Sarvint submits that the case should be ignored entirely.

### 3. The disputed “conductive fibers” terms

Term(s)	Sarvint’s Proposed Construction	Sensoria’s Proposed Construction
Conductive (claim 1)	Plain and ordinary meaning	Capable of detecting and transmitting electrical impulses
Individually conductive fibers (claim 1)	Conductive along an individual fiber	Fibers that are each capable of detecting and transmitting electrical impulses prior to incorporation into fabric
Individually conductive prior to incorporation into the fabric (claim1)	Conductive prior to integration into the fabric	Each fiber being either inherently conductive or treated at the fiber level to increase conductivity, before the fiber being knitted or woven into a fabric
In the absence of conductivity imparted to the fabric or to the fibers after incorporation into the fabric (claim 1)	Regardless of additional conductivity applied after integration into the fabric	Without the fibers or fabric receiving treatment to increase conductivity after the fibers are knitted or woven into a fabric
Fully-conductive (claim 1)	Conductive along more than one axis	Capable of detecting and transmitting electrical impulses throughout the entire fabric

#### a. Summary of “Conductive” terms

The dispute regarding the “conductive terms” can be reduced to five issues:

- Whether “conductivity” requires the intelligence to “detect.”
- Whether “individually conductive fibers” are capable of the intelligence to “detect” because they are now individual.

- Whether “individually conductive fibers” are actually “individual” and “conductive” prior to incorporation into the fabric.
- Whether “in the absence of” is temporal or infinitely permanent in time. That is, can the conductive fibers of an already conductive fabric be made even more conductive later.
- Whether “fully-conductive” means that the conductive fabric cannot include anything nonconductive.

b. “Conductive” requires no construction

Sarvint proposes that the term “conductive” is well-known and needs no construction. *See* [Dkt. No. 64, pg. 12]. Sensoria’s construction of the claim term only adds the additional element of “detecting” to the concept of “conductive,” which is otherwise well understood. *Optical Disc Corp., v. Del Mar Avionics*, 208 F.3d 1324, 1334-35 (Fed. Cir. 2000) (“Without evidence in the patent specification of an express intent to impart a novel meaning to a claim term, the term takes on its ordinary meaning.”) (*internal citations omitted*). Sarvint proposes that conductivity imparts no ability for detecting as described in its Opening Brief. [Dkt. No. 64, pgs. 12-13]. Sensoria’s Opening Brief was in fact completely silent as to why the additional element of “detecting” was proposed at all, or why it was in any way derived from the intrinsic evidence. As such, Sarvint maintains its position that there is no construction required for this well-understood claim term.

- c. “Individually conductive fibers” means “conductive along an individual fiber.”

Sarvint maintains its position that “individually conductive fibers” means “conductive along an individual fiber.” The Parties do not dispute the individual nature of the conductive fibers. That is, the word “individually” is not in dispute. The Parties instead dispute the meaning of conductive. As discussed above, Sarvint maintains its position that conductivity does not impart any intelligence for detection. The Court should adopt Sarvint’s construction.

- d. “Individually conductive prior to incorporation into the fabric” means “conductive prior to integration into the fabric.”

Sarvint maintains its position that “individually conductive prior to incorporation into the fabric” means “conductive prior to integration into the fabric.” As mentioned above, the term “conductive” requires no construction. Whether a fiber is conductive individually or in combination with other fibers makes no difference. There is nothing in the individuality or plurality of fibers of the fabric that changes their requirement for conductivity, prior to their integration in the fabric. Sarvint maintains its position that the individual fibers are individually conductive prior to their integration into the fabric. [Dkt. 64, pg. 23]. That is, the individual fibers can conduct before they are knitted or woven (integrated) with other individually conductive fibers or non-conductive fibers to form the fabric.

- e. “In the absence of conductivity imparted to the fabric or to the fibers after incorporation into the fabric” means “regardless of additional conductivity applied after integration into the fabric.”

As stated in Sarvint’s Opening Brief, there is very little difference between Sarvint’s construction and Sensoria’s. [Dkt. 64, pg. 25]. Both Parties acknowledge that the individually conductive fibers of the fabric-based sensor are conductive prior to their incorporation or integration into the fabric.

Sensoria’s Opening Brief attempts to confuse the issues by arguing that “[n]othing in the specification suggests the use of non-conductive or resistive fibers to form the fabric.” [Dkt. No. 63, pg. 23]. This is simply an attempt to ignore the plain recitation of the ‘731 Patent itself.

The ‘731 Patent clearly discloses that the fabric-based sensor may be made out of conductive fibers, non-conductive fibers, or any combination thereof. For instance, under the title “The Fabric-Based Sensor” in Col 3, Line 57 recites “Any yarn applicable to conventional knitted fabrics may be incorporated with conductive fibers into the conductive fabric sensor of the present invention.” [Dkt. No. 64-1, Exhibit A – ‘731 Patent 3:57]. Under the title “Other Fabrics Useful in the Sensor of the Present Invention” the ‘731 Patent states that “[f]abrics having form-fitting properties and high comfort properties may also be used in the fabric sensor of the present invention” and specifically recites the example of “SPANDEX fiber” which is inherently non-conductive. [Dkt. No. 64-1, Exhibit A – ‘731 Patent, 4:60-5:8].



Not only may the fabric-based sensor be made of conductive and non-conductive fibers, the ‘731 Patent explicitly contemplates that an entire garment may be made of conductive and non-conductive fibers, sensors, or patches of sensors. Under the title “Garment Containing Fabric-Based Sensor,” Col. 5 Line 28 recites that “[b]y knitting or weaving a conductive fiber into a fabric, a garment may be created entirely out of the conductive fibers or have one or more distinct patches of the conductive fabric.” [Dkt. No. 64-1, Exhibit A – ‘731 Patent, 5:28-30]. Clearly, Sensoria’s claim that the usage of non-conductive or resistive fibers is not supported by the specification of the ‘731 Patent. As demonstrated above, the specification repeatedly recites the usage of non-conductive fibers in the fabric-based sensors, as well as garments including such fabric-based sensors.

f. “Fully-conductive” means “conductive along more than one axis.”

Sarvint maintains that the proper construction of fully-conductive is conductive along more than one axis. In Sensoria’s Opening Brief, it has changed its construction to plain and ordinary meaning.

Sensoria’s original construction of the term “fully-conductive,” Sensoria required the “entire fabric” to be conductive. As stated above, the ‘731 Patent repeatedly describes fabric-based sensors that are fully-conductive but also include non-conductive fibers. As such, Sarvint maintains its position that the proper

construction for “fully-conductive” is “conductive along more than one axis.” [Dkt. No. 64, pgs. 17-21].

**4. The undisputed “Fabric-based sensor” terms**

- a. “Applying a fabric-based sensor to a subject” does not need construction.

In the interest of efficiency with the Court, Sarvint agrees with Sensoria that “applying a fabric-based sensor to a subject” needs no construction from the Court and the claim terms should be given their plain and ordinary meaning. *See* [Dkt. Nos. 63,].

- b. “Fabric-based sensor” does not need construction.

In the interest of efficiency with the Court, Sarvint agrees with Sensoria that “fabric-based sensor” needs no construction from the Court and the claim terms should be given their plain and ordinary meaning. *See* [Dkt. Nos. 63,].

**IV. CONCLUSION**

In view of the foregoing, Sarvint respectfully requests the Court adopt Sarvint’s proposed claim construction as set forth herein.

Dated: March 4, 2016

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that on March 4, 2016, I caused the above document to be electronically filed with the clerk of Court using the CM/ECF system, which will send electronic notification of such filing to all parties of record.

Dated: March 4, 2016

/s/ Bryan L. Baysinger

Bryan L. Baysinger

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